AMENDMENTS TO THE CLAIMS:

Claim 1 is amended. Claim 254 is added. Claims 141-240 and 242-254 are pending. The following is the status of the claims of the above-captioned application, as amended.

Claims 1-140 (Cancelled.)

468, 469, 470.

- 141. (Previously presented.) An isolated variant of a parent glucoamylase comprising a mutation at one or more of the following positions of amino acid position 402 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in a homologous glucoamylase having at least 80% homology with the amino acid sequence shown in SEQ ID NO:2, and wherein said variant has glucoamylase activity.

 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 10, 12, 13, 14, 15, 16, 17, 18, 19, 21, 22, 23, 24, 25, 26, 28, 29, 31, 32, 33, 34, 35, 40, 41, 42, 43, 44, 45, 46, 47, 49, 51, 53, 56, 58, 60, 61, 62, 73, 74, 75, 76, 77, 78, 79, 80, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 109, 110, 111, 113, 114, 115, 117, 118, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 234, 235, 237, 238, 239, 240, 242, 243, 244, 245, 287, 288, 289, 290, 291, 292, 294, 295, 296, 298, 299, 300, 301, 303, 304, 308, 311, 314, 315, 316, 318, 319, 334, 335, 336, 337, 338, 339, 340, 341, 353, 354, 355, 356, 357, 368, 359, 360, 361, 362, 363, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 384, 388, 390, 394, 397, 398, 399, 402, 403, 404, 405, 406, 409, 412, 413, 414, 445, 446, 447, 384, 388, 390, 394, 397, 398, 399, 402, 403, 404, 405, 406, 409, 412, 413, 414, 445, 446, 447,
- 142. (Previously presented.) The variant of claim 141, wherein said homologous glucoamylase has at least 90% homology to SEQ ID NO:2.

448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 461, 462, 463, 464, 465, 466, 467,

- 143. (Previously presented.) The variant of claim 141, wherein said homologous glucoamylase has at least 95% homology to SEQ ID NO:2.
- 144. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 1 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.

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(Currently amended.) The variant of claim 254141, wherein said variant comprises a 145. mutation at position 2 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.

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- (Currently amended.) The variant of claim 254141, wherein said variant comprises a 146. mutation at position 3 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 147. (Currently amended.) The variant of claim 254144, wherein said variant comprises a mutation at position 4 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 148. (Currently amended.) The variant of claim 254141, wherein said variant comprises a mutation at position 5 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 149. (Currently amended.) The variant of claim 254141, wherein said variant comprises a mutation at position 6 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 150. (Currently amended.) The variant of claim 254141, wherein said variant comprises a mutation at position 7 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- (Currently amended.) The variant of claim 254141, wherein said variant comprises a mutation at position 8 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 152. (Currently amended.) The variant of claim 254141, wherein said variant comprises a mutation at position 9 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.

- 153. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 11 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 154. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 10 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 155. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 12 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 156. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 13 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 157. (Currently amended.) The variant of claim <u>254144</u>, wherein said variant comprises a mutation at position 14 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 158. (Currently amended.) The variant of claim <u>254</u>144, wherein said variant comprises a mutation at position 15 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 159. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 16 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 160. (Currently amended.) The variant of claim <u>254144</u>, wherein said variant comprises a mutation at position 17 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 161. (Currently amended.) The variant of claim 254141, wherein said variant comprises a

mutation at position 18 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.

- 162. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 19 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 163. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 21 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 164. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 22 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 165. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 23 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 166. (Currently amended.) The variant of claim <u>254</u>144, wherein said variant comprises a mutation at position 24 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 167. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 25 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 168. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 26 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 169. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 28 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding

position in said homologous glucoamylase.

- 170. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 29 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 171. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 31 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 172. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 32 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 173. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 33 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 174. (Currently amended.) The variant of claim <u>254</u>144, wherein said variant comprises a mutation at position 34 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 175. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 35 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 176. (Currently amended.) The variant of claim <u>254144</u>, wherein said variant comprises a mutation at position 40 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 177. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 41 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.

- 178. (Currently amended.) The variant of claim <u>254</u>144, wherein said variant comprises a mutation at position 42 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 179. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 43 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 180. (Currently amended.) The variant of claim <u>254144</u>, wherein said variant comprises a mutation at position 44 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 181. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 45 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 182. (Currently amended.) The variant of claim <u>254</u>144, wherein said variant comprises a mutation at position 46 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 183. (Currently amended.) The variant of claim <u>254</u>144, wherein said variant comprises a mutation at position 47 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 184. (Currently amended.) The variant of claim <u>254</u>144, wherein said variant comprises a mutation at position 49 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 185. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 51 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.

- (Currently amended.) The variant of claim 254144, wherein said variant comprises a mutation at position 53 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- (Currently amended.) The variant of claim 254141, wherein said variant comprises a 187. mutation at position 56 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- (Currently amended.) The variant of claim 254141, wherein said variant comprises a 188. mutation at position 58 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 189. (Currently amended.) The variant of claim 254141, wherein said variant comprises a mutation at position 60 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- (Currently amended.) The variant of claim 254141, wherein said variant comprises a 190. mutation at position 61 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- (Currently amended.) The variant of claim 254141, wherein said variant comprises a mutation at position 62 In the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- (Currently amended.) The variant of claim 254141, wherein said variant comprises a 192. mutation at position 73 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- (Currently amended.) The variant of claim 254141, wherein said variant comprises a 193. mutation at position 74 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- (Currently amended.) The variant of claim 254141, wherein said variant comprises a 194.

mutation at position 75 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.

- 195. (Currently amended.) The variant of claim <u>254</u>144, wherein said variant comprises a mutation at position 76 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 196. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 77 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 197. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 78 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 198. (Currently amended.) The variant of claim <u>254144</u>, wherein said variant comprises a mutation at position 79 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 199. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 80 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 200. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 93 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 201. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 94 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 202. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 95 in the amino acid sequence shown in SEQ iD NO:2 or at a corresponding

position in said homologous glucoamylase.

- 203. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 96 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 204. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 97 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 205. (Currently amended.) The variant of claim <u>254</u>144, wherein said variant comprises a mutation at position 98 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 206. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 99 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 207. (Currently amended.) The variant of claim <u>254144</u>, wherein said variant comprises a mutation at position 100 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 208. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 101 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 209. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 102 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 210. (Currently amended.) The variant of claim <u>254144</u>, wherein said variant comprises a mutation at position 103 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.

- 211. (Currently amended.) The variant of claim <u>254</u>144, wherein said variant comprises a mutation at position 104 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 212. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 105 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 213. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 106 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 214. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 107 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 215. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 109 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 216. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 110 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 217. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 111 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 218. (Currently amended.) The variant of claim <u>254</u>144, wherein said variant comprises a mutation at position 113 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.

- 219. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 114 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 220. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 115 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 221. (Currently amended.) The variant of claim <u>254</u>144, wherein said variant comprises a mutation at position 117 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 222. (Currently amended.) The variant of claim <u>254144</u>, wherein said variant comprises a mutation at position 118 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 223. (Currently amended.) The variant of claim <u>254144</u>, wherein said variant comprises a mutation at position 200 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 224. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 201 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 225. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 202 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 226. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 203 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 227. (Currently amended.) The variant of claim 254141, wherein said variant comprises a

mutation at position 204 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.

- 228. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 205 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 229. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 206 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 230. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 207 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 231. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 208 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 232. (Currently amended.) The variant of claim <u>254</u>144, wherein said variant comprises a mutation at position 209 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 233. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 210 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 234. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 211 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 235. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 234 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding

position in said homologous glucoamylase.

- 236. (Currently amended.) The variant of claim <u>254</u>144, wherein said variant comprises a mutation at position 235 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 237. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 237 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 238. (Currently amended.) The variant of claim <u>254144</u>, wherein said variant comprises a mutation at position 238 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 239. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 239 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 240. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 240 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 242. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 242 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 243. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 243 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 244. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 244 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.

- 245. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 245 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 246. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 287 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 247. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 288 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 248. (Currently amended.) The variant of claim <u>254</u>144, wherein said variant comprises a mutation at position 289 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 249. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 290 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 250. (Currently amended.) The variant of claim <u>254144</u>, wherein said variant comprises a mutation at position 291 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 251. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 292 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 252. (Currently amended.) The variant of claim 444254, wherein said variant comprises a mutation at position 294 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.

- 253. (Currently amended.) The variant of claim 441254, wherein said variant comprises a mutation at position 295 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 254. (New.) An isolated variant of a parent glucoamylase comprising a substitution of an amino acid at one or more of the following amino acids in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in a homologous glucoamylase having at least 80% homology with the amino acid sequence shown in SEQ ID NO:2, and wherein said variant has glucoamylase activity.:
- 1. 2, 3, 4, 5, 6, 7, 8, 9, 11, 10, 12, 13, 14, 15, 16, 17, 18, 19, 21, 22, 23, 24, 25, 26, 28, 29, 31, 32, 33, 34, 35, 40, 41, 42, 43, 44, 45, 46, 47, 49, 51, 53, 56, 58, 60, 61, 62, 73, 74, 75, 76, 77, 78, 79, 80, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 109, 110, 111, 113, 114, 115, 117, 118, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 234, 235, 237, 238, 239, 240, 242, 243, 244, 245, 287, 288, 289, 290, 291, 292, 294, 295, 296, 298, 299, 300, 301, 303, 304, 308, 311, 314, 315, 316, 318, 319, 334, 335, 336, 337, 338, 339, 340, 341, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 384, 388, 390, 394, 397, 398, 399, 402, 403, 404, 405, 406, 409, 412, 413, 414, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470.